

SUPPLEMENTARY TABLES

Supplementary Table 1. Summary of bioinformatics database for analyzing the role of the GSDM family in HCC in this study.

| Databases | Authors | Samples | Homepage links |
|-------------------------|----------------------|---------|---|
| UALCAN | Chandrashekhar DS | Tissues | http://ualcan.path.uab.edu/index.html |
| GEPIA2 | Tang Z, et al. | Tissues | http://gepia.cancer-pku.cn |
| The Human Protein Atlas | Anna Asplund, et al. | Tissues | https://www.proteinatlas.org |
| Kaplan-Meier plotter | Gyorffy B, et al. | Tissues | http://kmplot.com/analysis |
| cBioPortal | Cerami E, et al. | Tissues | http://www.cbioportal.org |
| WebGestalt | Liao Y, et al. | — | http://webgestalt.org |
| Cytoscape | Doncheva NT, et al. | — | — |
| TIMER2.0 | Li T, et al. | Tissues | https://cistrome.shinyapps.io/timer |
| DiseaseMeth 2.0 | Xiong Y, et al. | Tissues | http://bio-bigdata.hrbmu.edu.cn/diseasemeth |

Supplementary Table 2. The GSDM-associated co-expressed molecules in HCC.

| Gene | Log Ratio | p-Value | expression |
|------------|-----------|----------|-----------------|
| RECQL4 | 1.13 | 1.83E-15 | Altered group |
| ZNF281 | -1.24 | 1.94E-14 | Unaltered group |
| PPTC7 | -1.38 | 7.95E-14 | Unaltered group |
| ERN1 | -1.26 | 1.21E-13 | Unaltered group |
| ZNF366 | -1.21 | 4.04E-13 | Unaltered group |
| NFIC | -1.1 | 5.82E-13 | Unaltered group |
| CCNT1 | -1.32 | 1.72E-12 | Unaltered group |
| SPATA13 | -1.32 | 3.08E-12 | Unaltered group |
| ROBO3 | 1.07 | 4.49E-12 | Altered group |
| PROX1 | -1.32 | 6.01E-12 | Unaltered group |
| UHMK1 | -1.33 | 7.34E-12 | Unaltered group |
| RAPGEF6 | -1.17 | 1.57E-11 | Unaltered group |
| GDF7 | -1.22 | 1.66E-11 | Unaltered group |
| SHPRH | -1.03 | 2.11E-11 | Unaltered group |
| IL6ST | -1.6 | 2.24E-11 | Unaltered group |
| GTF2A1 | -1.15 | 2.27E-11 | Unaltered group |
| HIPK3 | -1.36 | 2.31E-11 | Unaltered group |
| RALGAPA2 | -1.19 | 2.41E-11 | Unaltered group |
| HACD2 | -1.39 | 2.97E-11 | Unaltered group |
| PCDHGB7 | -1.29 | 6.17E-11 | Unaltered group |
| USP12 | -1.13 | 6.50E-11 | Unaltered group |
| ZKSCAN8 | -1.34 | 8.05E-11 | Unaltered group |
| HS3ST3B1 | -1.28 | 9.82E-11 | Unaltered group |
| DDI2 | -1.41 | 1.19E-10 | Unaltered group |
| PVT1 | 1.14 | 1.20E-10 | Altered group |
| NBPF10 | -1.31 | 1.55E-10 | Unaltered group |
| PRR34-AS1 | 1.02 | 1.76E-10 | Altered group |
| ANKRD36BP1 | -1.23 | 1.93E-10 | Unaltered group |
| KIAA0754 | -1.22 | 2.02E-10 | Unaltered group |
| SYNC | 1.86 | 2.05E-10 | Altered group |
| SERINC5 | -1.11 | 2.12E-10 | Unaltered group |
| REST | -1.19 | 2.28E-10 | Unaltered group |
| ETV3 | -1.08 | 2.41E-10 | Unaltered group |
| ONECUT1 | -1.16 | 2.46E-10 | Unaltered group |
| FNIP2 | -1.2 | 2.52E-10 | Unaltered group |
| GPR75 | -1.09 | 4.29E-10 | Unaltered group |
| PCDHGA6 | -1.05 | 4.76E-10 | Unaltered group |
| GPR17 | -1.05 | 5.62E-10 | Unaltered group |
| ZDHHC20 | -1.2 | 7.82E-10 | Unaltered group |
| TNFRSF18 | 1.1 | 9.24E-10 | Altered group |
| PCDHGA12 | -1.27 | 1.26E-09 | Unaltered group |
| CDKL5 | -1.09 | 1.40E-09 | Unaltered group |
| DBH | -1.2 | 1.61E-09 | Unaltered group |
| NBPF9 | -1.16 | 1.82E-09 | Unaltered group |

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| GHR | -1.11 | 1.96E-09 | Unaltered group |
| TNFSF12-TNFSF13 | 1.36 | 2.19E-09 | Altered group |
| SBNO1 | -1.15 | 2.20E-09 | Unaltered group |
| TGFBRAP1 | -1.08 | 2.28E-09 | Unaltered group |
| PCDHGA2 | -1.48 | 2.30E-09 | Unaltered group |
| PCDHGB6 | -1.17 | 2.57E-09 | Unaltered group |
| N4BP2 | -1.11 | 2.97E-09 | Unaltered group |
| SLC30A4 | -1.06 | 4.50E-09 | Unaltered group |
| ADAMTSL3 | -1.23 | 4.54E-09 | Unaltered group |
| ITGB3 | -1.1 | 6.08E-09 | Unaltered group |
| NIPAL1 | -1.24 | 6.81E-09 | Unaltered group |
| CLVS1 | 1.44 | 8.04E-09 | Altered group |
| FAT4 | -1.07 | 8.57E-09 | Unaltered group |
| AOC4P | -1.19 | 1.13E-08 | Unaltered group |
| LY6E | 1.24 | 1.59E-08 | Altered group |
| SELENOM | 1.11 | 1.63E-08 | Altered group |
| SUCNR1 | -1.08 | 1.82E-08 | Unaltered group |
| GOLIM4 | -1.03 | 2.66E-08 | Unaltered group |
| NFATC2 | -1.25 | 3.98E-08 | Unaltered group |
| S100A9 | 1.17 | 5.70E-08 | Altered group |
| TNNT1 | 1.41 | 6.92E-08 | Altered group |
| PARD3B | -1.02 | 7.46E-08 | Unaltered group |
| LY96 | 1.01 | 1.37E-07 | Altered group |
| DAB1 | -1.12 | 1.51E-07 | Unaltered group |
| PKIB | 1.24 | 1.77E-07 | Altered group |
| S100A2 | 1.04 | 1.96E-07 | Altered group |
| AQP7P3 | 1.1 | 2.35E-07 | Altered group |
| GOLGA6B | -1.24 | 2.69E-07 | Unaltered group |
| SFN | 1.55 | 2.70E-07 | Altered group |
| MMP9 | 1.29 | 3.88E-07 | Altered group |
| ADRA1A | -1.34 | 3.89E-07 | Unaltered group |
| SYNE4 | 1.03 | 4.48E-07 | Altered group |
| PPARGC1A | -1.17 | 4.61E-07 | Unaltered group |
| UBD | 1.1 | 5.23E-07 | Altered group |
| GPX2 | 1.46 | 5.42E-07 | Altered group |
| INS-IGF2 | -1.84 | 7.91E-07 | Unaltered group |
| PCDHGA3 | -1.1 | 8.65E-07 | Unaltered group |
| PCDHGB8 | -1.06 | 8.81E-07 | Unaltered group |
| NCOA2 | -1.05 | 9.29E-07 | Unaltered group |
| PDE3A | -1.06 | 1.01E-06 | Unaltered group |
| FBXW10 | 1.3 | 1.01E-06 | Altered group |
| KIRREL1 | -1.15 | 1.12E-06 | Unaltered group |
| TNNI3 | 1.01 | 1.21E-06 | Altered group |
| FAM66D | 1.04 | 1.22E-06 | Altered group |
| IGFALS | -1.4 | 1.41E-06 | Unaltered group |
| SLC5A11 | 1.32 | 1.57E-06 | Altered group |
| AP1M2 | 1.92 | 1.71E-06 | Altered group |
| CRYAB | 1.05 | 1.83E-06 | Altered group |
| SLC6A1 | -1.01 | 2.05E-06 | Unaltered group |
| PCDHGB5 | -1.15 | 2.16E-06 | Unaltered group |
| TRIM16L | 1.01 | 2.32E-06 | Altered group |
| PCDHGB2 | -1.06 | 3.82E-06 | Unaltered group |
| WASHC2A | -1.13 | 4.44E-06 | Unaltered group |
| NQO1 | 1.54 | 4.57E-06 | Altered group |
| PPP1R14D | 1.07 | 4.77E-06 | Altered group |
| GGTLIC2 | 1.07 | 5.89E-06 | Altered group |
| PCDHGA4 | -1.02 | 6.60E-06 | Unaltered group |
| INHBC | -1.01 | 7.35E-06 | Unaltered group |
| TRIM54 | 1.17 | 7.70E-06 | Altered group |
| AKR1B10 | 1.93 | 8.43E-06 | Altered group |
| AR | -1.19 | 9.37E-06 | Unaltered group |
| SNORD116-4 | -1.04 | 2.07E-05 | Unaltered group |
| FNDC5 | -1.37 | 2.12E-05 | Unaltered group |
| SPP1 | 1.59 | 2.73E-05 | Altered group |
| TINAG | 1.57 | 2.90E-05 | Altered group |
| GUCY2C | 1.38 | 3.83E-05 | Altered group |
| ABCA8 | -1.13 | 4.06E-05 | Unaltered group |
| AVPR1A | -1.26 | 4.39E-05 | Unaltered group |

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| TRNP1 | 1.01 | 4.98E-05 | Altered group |
| FXYD3 | 1.32 | 5.65E-05 | Altered group |
| GPR37 | -1.07 | 5.79E-05 | Unaltered group |
| GPLD1 | -1.1 | 6.01E-05 | Unaltered group |
| SPHK1 | 1.04 | 6.52E-05 | Altered group |
| GCNT3 | 1.14 | 7.47E-05 | Altered group |
| MMP12 | 1.13 | 7.79E-05 | Altered group |
| AKR1B15 | 1.33 | 8.03E-05 | Altered group |
| LMTK3 | 1.06 | 8.07E-05 | Altered group |
| SLC39A4 | 1.06 | 8.38E-05 | Altered group |
| TAT | -1.37 | 1.18E-04 | Unaltered group |
| LCN2 | 1.4 | 1.23E-04 | Altered group |
| EPO | 1.19 | 1.27E-04 | Altered group |
| POPDC3 | 1.04 | 1.46E-04 | Altered group |
| GCGR | -1.49 | 1.65E-04 | Unaltered group |
| TMEM92 | 1.3 | 1.82E-04 | Altered group |
| PAPPA2 | -1.09 | 1.89E-04 | Unaltered group |
| PTGES | 1.09 | 2.20E-04 | Altered group |
| PNCK | 1.1 | 3.30E-04 | Altered group |
| PITX1 | 1.21 | 4.42E-04 | Altered group |
| CLDN4 | 1.2 | 4.70E-04 | Altered group |
| SAA1 | 1.39 | 5.80E-04 | Altered group |
| HHIPL2 | 1.05 | 5.88E-04 | Altered group |
| PAGE1 | 1.02 | 6.38E-04 | Altered group |
| CYP2A13 | -1.05 | 7.10E-04 | Unaltered group |
| SPINK1 | 1.57 | 7.36E-04 | Altered group |
| CNDP1 | -1.2 | 7.85E-04 | Unaltered group |
| CYP4A22 | -1.01 | 8.54E-04 | Unaltered group |
| AGR2 | 1.33 | 9.43E-04 | Altered group |
| AFP | 1.41 | 9.51E-04 | Altered group |
| ADAMTS16 | -1.02 | 1.03E-03 | Unaltered group |
| HSD17B13 | -1.4 | 1.06E-03 | Unaltered group |
| CYP3A4 | -1.54 | 1.07E-03 | Unaltered group |
| GAGE4 | 1.02 | 1.23E-03 | Altered group |
| UGT2A1 | 1.03 | 1.30E-03 | Altered group |
| UGT1A4 | -1.23 | 1.58E-03 | Unaltered group |
| ALDH3A1 | 1.43 | 1.60E-03 | Altered group |
| RPS4Y1 | 1.64 | 1.85E-03 | Altered group |
| S100P | 1.28 | 1.90E-03 | Altered group |
| PDZK1IP1 | 1.18 | 2.05E-03 | Altered group |
| C9 | 1.36 | 2.75E-03 | Altered group |
| SAA2 | 1.24 | 3.13E-03 | Altered group |
| XIST | -1.55 | 3.48E-03 | Unaltered group |
| FAM133A | 1.02 | 4.14E-03 | Altered group |
| HSD11B1 | -1.01 | 4.61E-03 | Unaltered group |
| PRSS3 | 1.12 | 4.90E-03 | Altered group |
| CPLX2 | 1.34 | 5.46E-03 | Altered group |
| BPIFB2 | 1.03 | 9.51E-03 | Altered group |
| SLC22A12 | 1.02 | 9.70E-03 | Altered group |
| IGF2 | -1.11 | 9.83E-03 | Unaltered group |
| PGC | 1.19 | 0.0125 | Altered group |
| REG1A | 1.14 | 0.0138 | Altered group |
| APOA4 | 1.11 | 0.0169 | Altered group |
| EIF1AY | 1.01 | 0.0191 | Altered group |
| SLCO1B3 | -1.01 | 0.0228 | Unaltered group |
| XAGE1B | 1.12 | 0.0315 | Altered group |